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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/565,947	01/26/2006	George G. Moser	5279000017USNPB	8300
27572 7590 12/17/2007 HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 828 BLOOMFIELD HILLS, MI 48303			EXAMINER HO, HA DINH	
			ART UNIT 3681	PAPER NUMBER
			MAIL DATE 12/17/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/565,947

Applicant(s)

MOSER ET AL.

Examiner

Ha D. Ho

Art Unit

3681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 9-18 is/are rejected.
- 7) ☒ Claim(s) 7 and 8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 01/26/06.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This is the first Office Action on the merits of Application No. 10/565,947 filed on 01/26/06. Claims 1-18 are currently pending.

Claim Objections

2. Claims 2-6, 9, 11, 12, 14 and 18 are objected to because of the following informalities:
 - Claim 2, line 1, “A” should be changed to --The--.
 - Claim 3, line 1, “A” should be changed to --The--.
 - Claim 4, line 1, “A” should be changed to --The--.
 - Claim 5, line 1, “A” should be changed to --The--.
 - Claim 6, line 1, “A” should be changed to --The--.
 - Claim 9, line 1, “torque” should be changed to --power-- (see claims 10 and 11).
 - Claim 11, line 1, “A” should be changed to --The--.
 - Claim 12, line 5, “MRF” should be changed to --a magneto rheological fluid (MRF)--.
 - Claim 14, line 1, “12” should be changed to --13-- or “the current” should be changed to --a current-- and “the at least one coil” should be changed to --an at least one coil--.
 - Claim 18, line 1, “A” should be changed to --The--.
 - Claim 18, line 1, “1” should be changed to --10-- or “the at least one coil” should be changed to --an at least one coil--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 9, 10 and 12-14 rejected under 35 U.S.C. 102(b) as being anticipated by Moser et al (US 6,032,772).

Moser et al. discloses a clutching arrangement for transferring power comprising an input assembly 12 for coupling to a first drive member 14, an output assembly 56 for coupling to a second drive member 18, MRF 74, and a coil 22, wherein electrical current is delivered to the coil to activate the MRF (see col. 4, lines 40-59). Also, the method for selectively transferring torque between the first and second drive members is anticipated by the structure of the prior art.

5. Claims 9-15 rejected under 35 U.S.C. 102(b) as being anticipated by Bansbach (US 5,845,753).

Bansbach discloses a clutching arrangement for transferring power (Fig. 2) comprising an input assembly 54 for coupling to a first drive member 62, an output assembly 68 for coupling to a second drive member 66, MRF, a coil 78, and a controller 81 for delivering electrical current to the coil to activate the MRF based on input signal from sensors for monitoring the speeds of the first and second drive members (see abstract). Also, the method for selectively transferring torque between the first and second drive members is anticipated by the structure of the prior art.

6. Claims 1, 3 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Kawamoto et al (JP 64-083931).

Kawamoto et al discloses a clutching arrangement comprising an electrically controlled clutch (22, 27) mounted in a housing, a clutch synchronizer/brake 28, and an electric control module (i.e., the controller for applying electric current to the coil 24).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2, 4 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawamoto et al (JP 64-083931) in view of Moser et al (US 6,032,772).

Kawamoto et al does not show the clutch or the synchronizer being an MRF clutch or an MRF brake.

Moser et al discloses a conventional MRF clutch/brake.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use an MRF clutch or an MRF brake in the device of Kawamoto et al in view of Moser et al to reduce wear. Further, the MRF clutch/brake would provide a variable driving force

dependent upon the strength of the magnetic field produced (see col. 2, lines 2-4) thereby the engagement can be controlled.

Regarding claim 18, note that Moser et al shows the MRF clutch/brake including a slip ring 24.

9. Claims 1, 3, 5, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forsyth (US 5,975,263) in view of Kawamoto et al (JP 64-083931).

Regarding claims 1, 3 and 5, Forsyth shows a vehicle comprising a manual transmission 12 and an engine (inherent). Forsyth does not show a clutch arrangement therebetween. A clutch arrangement located between the engine and transmission is old and well known in the art.

Kawamoto et al discloses a clutch arrangement as set forth above.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a clutch arrangement to the vehicle of Forsyth in view of Kawamoto et al since it is old and well known in the art. Further, the advantage of the clutch arrangement of Kawamoto et al is to prevent generation of abnormal sound and to improve durability (see abstract).

Regarding claims 16 and 17, Forsyth shows the vehicle comprising a switch 184 located on a shift stick 182.

10. Claims 6 rejected under 35 U.S.C. 103(a) as being unpatentable over Forsyth (US 5,975,263) in view of Kawamoto et al (JP 64-083931) as applied to claim 1 above, and further in view of Jones (US 6,569,057).

The combination of Forsyth and Kawamoto et al does not show the clutch is automatically disengaged when a brake pedal is depressed.

Jones discloses a control system in the vehicle, wherein the clutch is automatically disengaged when a brake pedal is depressed (col. 4, lines 46-51).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a control system to the combination of Forsyth and Kawamoto et al such that the clutch is automatically disengaged when a brake pedal is depressed as taught by Jones in order to provide the vehicle with safeguards (col. 1, 56-59).

Allowable Subject Matter

11. Claims 7 and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Cited Prior Art

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Johnston et al'678, Schmidl'721 and Dolan'290.

Communication

13. Submission of your response by facsimile transmission is encouraged. The fax phone numbers for the organization where this application or proceeding is assigned are **(571) 273-8300**. Recognizing the fact that reducing cycle time in the processing and examination of patent applications will effectively increase a patent's term, it is to your benefit to submit responses by facsimile transmission whenever permissible. Such submission will place the response directly in our examining group's hands and will eliminate Post Office processing and delivery time as well as the PTO's mail room processing and delivery time. For a complete list of correspondence not permitted by facsimile transmission, see M.P.E.P. 502.01. In general, most responses and/or amendments not requiring a fee, as well as those requiring a fee but charging such fee to a deposit account, can be submitted by facsimile transmission. Responses requiring a fee which applicant is paying by check should not be submitting by facsimile transmission separately from the check. Responses submitted by facsimile transmission should include a Certificate of Transmission (M.P.E.P.. 512). The following is an example of the format the certification might take:

I hereby certify that this correspondence is being facsimile transmitted to
the Patent and Trademark Office on _____

(Date)

Typed or printed name of person signing this certificate:

(Signature)

If your response is submitted by facsimile transmission, you are hereby reminded that the original should be retained as evidence of authenticity (37 CFR 1.4 and M.P.E.P.. 502.02). Please do not separately mail the original or another copy unless required by the Patent and Trademark Office. Submission of the original response or a follow-up copy of the response after your response has been transmitted by facsimile will only cause further unnecessary delays in the processing of your application; duplicate responses where fees are charged to a deposit account may result in those fees being charged twice.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ha D. Ho whose telephone number is **571-272-7091**. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor can be reached on **571-272-7095**.

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14. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/HDH/
(571) 272-7091
December 13, 2007

/Ha D. Ho/
Primary Examiner, A.U. 3681